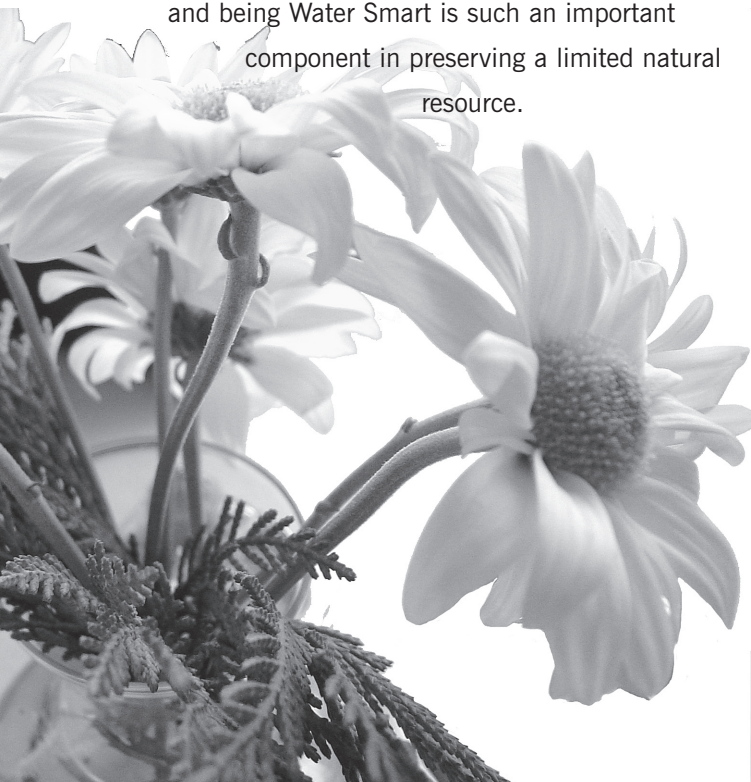


Let's be Water Smart What's It All About?

Why be Water Smart you ask? Well, the James City Service Authority (JCSA) is the largest water utility in Virginia that is primarily reliant on ground water for its water supply system. If you live in James City County and are a customer of the JCSA, you are using water from the Chickahominy-Piney Point and Potomac Aquifers which are hundreds of feet below the earth's surface. That water supply is limited and takes years to recharge through infiltration and percolation of rain water into the ground. During our peak season in the summer, water usage dramatically increases by 60-70% due to outdoor water use activities such as watering landscapes and irrigating lawns. Ground water is a finite resource and that's why conserving water and being Water Smart is such an important component in preserving a limited natural resource.

Let's be Water Smart is a public/private water management initiative of the James City Service Authority. The goal of Let's be Water Smart is to promote responsible water usage in James City County, VA.



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Being “Water Smart” doesn’t mean living without water. It means being informed about the right ways to use water for both healthy plants and water efficiency.

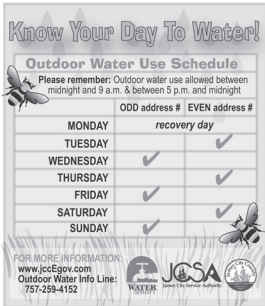
The reality is that you can create a beautiful landscape while drastically reducing water consumption. In fact, 85% of turf and landscape problems are caused by OVER WATERING, which not only wastes water but costs you time and money to fix the problems.

By following a few simple guidelines, Water Smart gardeners create landscapes and gardens that can withstand whatever nature throws at them, especially the long, hot, and often dry summers we have in James City County.

As you will see in this guide, there are many ways to be Water Smart. Some of the tips are common sense approaches to reducing outdoor water use, others are unique Water Smart techniques. Our plant list contains many varieties of trees, shrubs, vines and groundcovers that are hardy, drought tolerant and perfect for your landscape. Already adapted to the region, native plants are especially suited to Water Smart landscaping, while many common annuals and non-native perennials thrive without extra watering.

But first, Know Your Day to Water! From May 1st to September 30th of every year, JCSA customers are under Ordinance No. 116A-34 to help the County manage water demand during the hot summer months. Under the ordinance, JCSA customers may use water outdoors for any purpose, at any time, on any day, as long as it is with a container or a hose with an automatic shutoff nozzle. The hose must be attended at all times. Any other method of outdoor water use, such as automatic irrigation systems, sprinklers, or hoses without automatic shutoff nozzles, must follow the Outdoor Water Use Schedule, which is based on street address.

Visit the Water
Wise Demonstration
Garden at the
James City County
Extension Office,
3127 Forge Road,
Toano, VA.



Let's be Water Smart About Turf & Soil

3

Turf & Soil
Guide

One of the quickest ways to be Water Smart and reduce water consumption is to reduce your turf area. Just watch today's home and garden programs and you will see that this is also the trend in landscape style. Increasing groundcover, installing landscaped beds, mulching under trees, converting yard space to patios or decks, and adding shade trees are great and popular ways to reduce turf and add interest to your landscape.

But for many people, turf is still the centerpiece of a landscape, and even if it makes up a small part of your overall plan, keeping turf healthy can be a challenge.

Turf Selection

It's important to select the right turf for your needs. Turf is tricky in James City County because we are in a transition zone between northern and southern climates. In other words, neither cool season nor warm season turf absolutely thrives here, and maintaining a healthy lawn takes work.

Don't Sweat the Heat!

During hot, dry spells, a healthy lawn can survive on just one inch of water per week (including rainfall).



Spring & Fall Turf Tips

Warm season
grasses such as
Bermuda and
Zoysia perform
best when
fertilized between
April 1 and
August 15. Cool
season fescue
requires fall
maintenance to
prepare for the
winter growing
season.

Most of the turf used in this area is Tall Fescue.

Tall Fescues are cool season grasses which come under considerable stress during our usual hot, dry summers. They do not do well in full sun or under high traffic applications. Cool season grasses do best in some shade with limited foot traffic.

If your lawn is to be in full sun with lots of activity, consider warm season grasses like Bermuda or Zoysia. Just like the Fescues, there are new cultivators which can be established by the homeowner with seed. Prior to this, sod sprigs and plugs were the only establishment options available. Your local Extension Office can supply you with a recommended seed list for cool and warm season turf establishment.

Without irrigation during a hot, dry summer, cool season grasses will go dormant. Warm season grasses will go dormant in the winter months. In either case, well established and well maintained turf will recover fully after dormancy.

Annual Maintenance

The best way to ensure the health of cool season turf is an annual maintenance plan which calls for fall aeration and nitrogen fertilizer applications in September, October and November.

Warm season grasses perform best when aerated in April and fertilized during the summer growing season.

Maintenance schedules for both cool and warm season grasses are available through the Turf Love Nutrient Management Program at the JCC Virginia Cooperative Extension.

Watering

If you have a cool season lawn, you need to decide whether to allow the turf to go dormant in the summer. Cool



season grasses grow most vigorously during the cool, wet days of fall and spring. Without adequate water during the summer, cool season grasses go dormant, turning a light tan. If you allow the turf to go dormant, you must not fertilize or water, since this awakens it from dormancy.

If you want to keep your cool season turf green during a hot, dry summer, you will have to water. However, you should only water when the lawn is stressed from lack of water. A lawn under drought stress will turn bluish-gray, and if you walk the lawn, it will leave footprints and the grass will not bounce back.

During hot, dry spells, a healthy lawn will do nicely on just one inch of water per week but may turn tan. Deep but infrequent watering encourages deep roots, strengthening the plant, cooling the soil, and fortifying the grass against drought conditions. Shallow watering means shallow roots, which means weak plants. An easy way to determine how long it takes to apply one inch of water is to put a rain gauge or an empty can under your sprinkler and see how long it takes to deliver an inch.

Mowing

During the summer, never remove more than one third of the grass blade, so set your mower on the highest setting. For Tall Fescue, set the mower height at 2.5-3 inches. For Bermuda or Zoysia, set the mower height at 0.5-1.5 inches. Higher grass cools the soil, encourages deep roots and reduces heat stress. If grass is mowed too short, root growth slows down, making the grass more susceptible to heat and drought.

Leave clippings on the lawn as a natural way to add nutrients and organic matter. And remember to keep your mower blade sharp. A dull blade tears and weakens the grass.

Not Too Short

Give your turf a fighting chance in the hot summer months. Set your mower height at 2.5-3 inches for Tall Fescue and 0.5-1.5 inches for Bermuda or Zoysia to cool the soil and prevent weeds from germinating.



Weed Be Gone!

Proper mowing
reduces weeds
50%-80%.

Give Your Soil A Test

A soil test will
determine which
nutrients are
available in the soil
and provide liming
and fertilization
recommendations.

Forms and
instructions for
obtaining soil
samples are
available from the
local Extension
Office at (757)
564-2170.

Weed Control

The best defense against weeds for well established cool season turf is mowing it at a height of 2.5-3 inches. Tall turf shades out weeds. Crabgrass control is best accomplished by applying a pre-emergent herbicide in early March.

Warm season grasses provide a unique control opportunity in that a non-selective herbicide can be used after turf goes dormant.

Test Your Soil

Healthy plants start with healthy soil. Test the soil prior to establishment and every three years to determine the level of nutrients and pH (soil acidity/alkalinity). If the soil pH is too low (acidic) or too high (alkaline), the nutrients that are available in the soil or added by you cannot be utilized by the turf plant. Both cool and warm season grasses do best with a slightly low (acidic) pH of 6.5.

A soil test can provide information on the proper amount of lime and fertilizer to add to your lawn, garden and other areas of your landscape. When gardeners apply only as much lime and fertilizer as is needed and at the appropriate time, nutrient runoff into surface or groundwater is minimized, money is saved, and plant health is optimized.

Add Microbes

Fertilizing properly with an organic fertilizer or lightly top dressing with compost will increase helpful microbes that reduce thatch buildup, improve soil texture and increase chlorophyll, antioxidants, root mass and surface area. Combining this with other drought resistance measures will give you a healthier lawn with whatever challenges our climate brings on.



Let's be Water Smart About Landscaping & Watering

Water Smart landscaping creates landscapes and gardens that can withstand whatever nature throws at them, especially the long, hot, and often dry summers we have in James City County. But creating a Water Smart landscape doesn't mean digging everything up and starting from scratch. Here are some tips to help you plan for changes, correct problems and better care for your plants.

Follow Nature's Lead

If you want your landscape to thrive in tough times, plant with nature instead of against her. Use the natural site conditions (drainage, light, soil conditions, etc.) and select plants that thrive in those conditions without much extra care.

Right Plant, Right Place

Putting the right plant in the right place will reduce water needs. Consider drainage, light and soil conditions before you plant.



Cover Your Ground

Hardy groundcovers are an attractive way to reduce water hungry turf.

Mulch Mulch Mulch

Mulching is one of the best things you can do to conserve moisture and improve plant health. Mulch insulates plant roots from summer heat and winter cold, controls weeds that compete for moisture and nutrients, and increases soil permeability.

Always mulch two to three inches deep under trees and extend the mulch two to three times beyond the leaf canopy to cover the roots. Keep the mulch several inches away from the tree trunk to prevent insect infestation and bark decay.

Fine textured organic mulches like pine straw, pine bark, mini-nuggets and shredded hardwood are best. They hold moisture, don't mat, and allow nutrients, oxygen and water to reach plant roots. Avoid inorganic mulches like gravel, rocks, and marble which absorb and radiate heat.

Islands of unplanted organic mulch designed to blend with the landscape are an economic way to retrofit an existing landscape to make it more water efficient while reducing maintenance.

Increase Groundcover

Sometimes unsuitable growing conditions prevent turf grass from establishing and groundcovers may provide solutions to a landscaping challenge. By reducing your turf, you also reduce maintenance and water demands. Groundcover plants, when properly taken care of, provide dense soil cover, retard weed growth, and prevent soil erosion. There is a broad array of colors and textures to choose from. A few plants that do well in our area include, Creeping Juniper, Liriope, Phlox and Sedum.

Right Plant, Right Place

Simply putting the right plant in the right place can reduce water needs and improve your overall landscaping success.



Consider the purpose the plants will serve. Are you improving your foundation, adding color or shade, or planting a windbreak? Do you want to use perennials or annuals, and how much time are you willing to spend on maintenance?

Learn which plants will meet your needs and take into account each plant's hardiness, light and water needs, disease and insect resistance, pruning requirements, and mature size.

Drought tolerant plants should be used in dry spots, windy or exposed areas, on berms, and against unshaded south or west walls of buildings. Plants adapted to wet soils should be used in low spots and areas with poor drainage.

Group by Water Needs

To reduce watering and maintenance, group higher water needs plants together, and place them in a spot that is naturally moist like a low-lying area or at the bottom of a hill. Group together drought tolerant plants and ornamental grasses that require little water.

Add Shade

Shade from trees or structures can cool the landscape by as much as 20°F by reducing heat buildup and water loss. For example, a mature oak tree can dissipate as much heat as four home central air conditioners running 24 hours per day. Shade also reduces heat buildup from hard surfaces like driveways, walks and walls, so shade these surfaces with trees and large shrubs.

Design an Oasis

Use the "oasis" approach to achieve a landscape that is both natural and visually impressive. Consolidate water hungry, high maintenance, and showy plants in high impact

Nature's Air Conditioning

A mature oak tree can dissipate as much heat as four home central air conditioning units over a 24 hour period.



Walk a Rocky Road

Using permeable paving material like crushed gravel, instead of bricks or concrete, allows water to penetrate the soil.

areas like entrances, primary views, patios, and courtyards.

Use lower maintenance plants in areas that get less traffic or are less visible.

Hardscape

Hardscaping with permeable material allows water to penetrate the ground underneath, and can be used for driveways, walkways and patios. For example, build a path with crushed gravel instead of bricks, or use permeable pavers instead of concrete for a new patio or driveway.

Create a Rock Garden

Adding rock features to your landscape reduces turf and creates interest. Sun loving perennials, annuals, grasses and herbs like rosemary, oregano, thyme and lavender are natural rock garden choices.

Add Ornamental Grasses

Ornamental and native grasses are an ideal addition to the Water Smart landscape. Often overlooked, they add texture, color and sound, and once established they are practically indestructible and require little attention. Most do well in full sun and dry soil.

Grasses can be used in the border, along pathways, in containers, among rocks, in naturalized areas, or in the foundation. Their foliage and blooms are beautiful in late summer and fall and add winter interest when the rest of the garden is dormant.

Switchgrass (*Panicum virgatum*), comes in a wide variety of sizes, shapes and colors. Varieties such as “Dallas Blue” and “Cloud Nine” offer a blue hue while “Hanse Herms” would satisfy your red and purple color palette.



Big bluestem (*Andropogon gerardii*) is also a wonderful addition to borders and naturalized areas.

Go Native

Virginia is home to countless native plants that are naturally adapted to the area's conditions. Once established, they require little care and add color and variety to the landscape.

According to the Department of Conservation and Recreation (DCR), "native species are those that occur in the region in which they evolved. Native plants possess certain traits that make them uniquely adapted to local conditions, providing a practical and ecologically valuable alternative for landscaping. In addition, native plants can match the finest cultivated plants in beauty, while often surpassing non-natives in ruggedness and resistance to drought, insects and disease."

For more information call the Virginia Native Plant Society at 540-837-1600 or log onto their website at www.vnps.org.

A Growing Problem

Alien invasive plants, also known as exotic or non-native, are species intentionally or accidentally introduced into a region in which they did not evolve. They escape cultivation and infest lawns as weeds, displace native plant species, reduce wildlife habitat, and alter ecosystems.

Even common plants such as English Ivy (*Hedera helix*), Japanese Barberry (*Berberis thunbergii*) and Purple loosestrife (*Lythrum salicaria*) appear on invasive species lists as aggressive invaders. Invasive plant websites contain information on invasive plant identification, their impact on native species, their control and native alternative plants suggestions. Visit the Plant Conservation Alliance website at

Ask a Native

The Virginia Native Plant Society can be a valuable Water Smart resource. Contact the Society at 540-837-1600 or online at www.vnps.org.



www.nps.gov/plants/alien or the Virginia Native Plant Society at www.vnps.org/invasive.html.

Visualize the End Before You Start

Whether or not you use a landscape designer, be sure to have a master plan. Knowing what you want in the end will help avoid wasting time and money along the way.

Hire a Designer

Before you design a water smart landscape or retrofit your current landscape, consider using a professional landscape designer. Here is some helpful advice reprinted with permission from "Landscape Designers: Professional Help For Your Garden" by Carol Pilgrim and Karen Kelly, Certified Landscape Designers, V.S.L.D.

"A good landscape designer will take into account tastes, lifestyle, and the amount of time you have to maintain a garden. They will gather information from you, assess existing planting and site conditions, and recommend a course of action.

The landscape design can range from a simple sketch on site to a fully developed master plan. If you plan to contract the work out or complete the garden over a number of seasons, a master plan is the best way to go. This is a scale drawing that can be used by your contractors to help install and price their work. The biggest advantage of a master plan is that, as each phase is completed, it will relate to the other sections of the overall design. Once you have completed all the phases, you will have a cohesive whole.

Landscape design services vary. Some designers only draw the garden plan. Homeowners can then install the work themselves or have contractors bid on the job. Other designers may offer landscape contracting services. They would be able to provide installation of the project in addition to the design."

Watering and Irrigation

So you have the right plants in the right place, and less of



your landscape is turf. You have rain gauges monitoring your water needs and you've even had your soil tested. So when it comes time to turn on your sprinklers or water your garden, don't feel guilty - even Water Smart gardeners need to water sometimes.

But remember, 85% of turf and landscape problems are caused by OVER WATERING. So, here are 10 simple guidelines to consider before you let the water flow.

1. Know Your Day to Water!
2. Healthy turf needs no more than one inch of water per week to survive but it may turn tan.
3. Water early in the morning, not in the evening or in the heat of the day, to reduce evaporation and disease.
4. Water infrequently, deeply and slowly to encourage deep root growth and reduce runoff. For example: 15 minutes on, 15 minutes off until 1 inch of water is applied.
5. Use drip irrigation or soaker hoses in landscaped beds to deliver water right to the roots.
6. Use a rain gauge set at 1/4 inch with your automatic irrigation system to override the system when it rains.
7. If you water trees and shrubs by hand, water the roots under the drip line, which extends as far as the leaf canopy. Watering the foliage wastes water and promotes disease.
8. Use a rain barrel to catch and store water for irrigation.
9. Water your landscape, not your driveway or sidewalks.
10. Use common sense and be Water Smart.

Timing is Everything

Watering when unnecessary is a waste of water and may damage your plants. Whether you use an automatic irrigation system or water manually, don't water when seasonal rain is adequate.





Let's be Water Smart Lawn & Garden Calendar

Here is a simple calendar to help you stay in tune with your surroundings and maintain your landscape throughout the year.

January

Take a cue from nature and relax.

What's in bloom? Nandina and holly are in fruit.

February

Apply pre-emergent weed control. Prune fruit trees and crape myrtles while they are still dormant. Remove diseased, dead, and broken wood, and limbs that rub against each other. Remove extra vertical shoots growing off the main stem.

'Tis the Season

Throughout the year, knowing what to do and when to do it is helpful in planning and maintaining your Water Smart landscape.

Thank you to
Kathy Van Mullekom,
Daily Press Gardening
and Home Columnist,
for much of the
information in this
calendar.

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Lawn & Garden
Calendar



Prune evergreen trees and shrubs. Begin preparing new beds and rejuvenating old beds by working in organic matter.

What's in bloom? Witch hazel, winter hazel, and winter sweet.

March

Apply pre-emergent weed control. Mulch trees and shrubs to conserve moisture during summer. Mow lawns on the highest setting to conserve moisture and shade weed seeds to prevent germination. Soil test fescue lawns to determine nutritional needs in preparation for fall maintenance. Feed warm season lawns. Prune boxwood, nandina, ligustrum, pittosporum, butterfly bush, camellia sasanqua, euonymus, cotoneaster, southern wax myrtle, hydrangea, and rose-of-sharon.

What's in bloom? Crocus, daffodil, snowdrop, glory-of-the-snow, winter aconite, siberian squill, grape hyacinth, and forsythia.

April

Lightly fertilize trees and shrubs (heavy fall fertilization is best). Mow evergreen groundcovers on highest setting. Fertilize warm season turf. Plant new perennials and pull mulch back from emerging perennials. Top dress lightly with new mulch. Prune azalea, forsythia and other spring-flowering plants after they bloom. Trim ornamental grasses such as pampas grass.

What's in bloom? Daffodil, tulip, iris, azalea, dogwood, redbud, flowering fruit trees, and forsythia.

May (JC&A Outdoor Water Use Regulations Begin for the Year)

Mulch trees and shrubs to conserve moisture during summer. Attract beneficial insects to your garden by planting



dill, lavender, fennel, yarrow, tansy, parsley and sunflowers. Mow lawns on the highest setting to conserve moisture and shade weed seeds to prevent germination. Feed warm season turf. Prune boxwood, magnolia, maple, redbud, serviceberry, crabapple, Japanese camellia, cherry laurel, daphne, euonymus, winter jasmine, Indian hawthorn, pieris, ligustrum, spirea, viburnum, pussy willow, witch hazel, yew and arborvitae.

What's in bloom? Spring and summer flowering annuals and perennials.

June

Mow fescue lawns on the highest setting to conserve moisture and shade weed seeds to prevent germination. Watch for brown patch fungus in lawns - use fungicide if severe following label recommendations (consult with Extension or garden center). Prune flowering almond, aucuba, azalea, barberry, beautybush, boxwood, Japanese camellia, cherry laurel, daphne, deutzia, forsythia, evergreen holly, honeysuckle, hydrangea, Indian hawthorn, winter jasmine, kerria, lilac, mahonia, mock orange, mountain laurel, pieris, mugo pine, ligustrum, pyracantha, quince, rhododendron, serviceberry, spring blooming spirea, viburnum, weigela, pussy willow, witch hazel, yew, arborvitae, deodar cedar, hemlock, pine and spruce.

What's in bloom? Summer flowering annuals, perennials and shrubs, crape myrtle.

July

What to do: Keep container plants watered on hot days. Fertilize warm season grass. Watch for brown patch fungus in lawns; spray daily with fungicide if severe. Consult with



extension or garden center. Use mulching mower so moisture- and nitrogen-rich grass clippings decompose and nourish lawn. Lightly trim scraggly annuals and feed for flush of new growth and blooms.

What's in bloom? Summer flowering annuals, perennials and shrubs; crape myrtles.

August

What to do: Rid fescue lawn of weeds in preparation for fall seeding and fertilization. Do soil test on fescue lawn area to determine nutritional needs for fall maintenance. Line up lawn aeration before fall seeding. Prepare beds for fall plantings of shrubs, trees and perennials. Fall is the best time to transplant and install new shrubs and trees because roots can get established before summer's heat arrives again.

What's in bloom? Summer flowering annuals, perennials and shrubs; crape myrtles; ornamental grasses.

September

What to do: Aerate and thatch cool season turf in preparation for reseeding.

Apply lime. Sow cool-season fescue seeds Sept. 15-Oct. 15. Fall plantings of trees, shrubs and perennials are ideal because roots establish over winter before next summer's heat. Prepare large raised planting beds now with topsoil, coarse sand and organic matter. Prune sumac, beech, honeylocust, linden and bald cypress. Avoid pruning other shrubs or growth may not harden off before winter cold.

What's in bloom? Late flowering annuals and perennials, ornamental grasses, crape myrtle.



October (JCSA Outdoor Water Use Regulations End for the Year)

What to do: Fertilize fescue lawns applying 1-1/2 pounds of actual nitrogen, phosphorus and potash per 1,000 square feet. Example: 15 lbs. of 10-10-10 or equivalent of other fertilizers per 1,000 square feet, allowing at least 30 days between first and second application. Do your winter weed control on fescue grass. New grass should be mowed at least twice before herbicide treatment, says Virginia Cooperative Extension. Overseed Bermuda grass with annual ryegrass, if desired, at 5 lbs. per 1,000 square feet. Zoysia does not like overseeding. Install new trees and shrubs; transplant ones that need to be moved. Mulch, mulch, mulch everything for winter protection and landscape beauty. Mulch grass and fallen leaves. Use leaves as a base mulch and cover with nicer mulch. Prune elm, golden rain tree, honeylocust, linden, poplar, sophora, sumac, sourwood and potentilla.

What's in bloom? Ornamental grasses.

November

What to do: Fertilize fescue grass using 1 pound actual nitrogen per 1,000 square feet. Do winter weed control on Bermuda and Zoysia. Prune alder, goldenrain tree, sophora, sourwood, birch, elm, maple, oak, willow and poplar.

What's in bloom? Chrysanthemum, aster, nandina, holly, chokeberry and beautyberry are in fruit.

December

What to do: If a soil test indicates your soil needs lime, winter is the time to let the mineral do its work. Lime sweetens soil or combats soil acidity and supplies calcium for plant growth. An application to bring the soil pH to 6.5 should last four to six years. Lightly prune evergreens for holiday



decorations. Water evergreens during winter when there is no rainfall.

What's in bloom? Nandina, holly, chokeberry and beautyberry are in fruit.



Let's be Water Smart The Right Plants

When selecting Water Smart plants, consider the purpose the plants will serve. Are you improving your foundation landscape, adding shade, creating a windbreak, or adding color? Do you want perennials or annuals? How much time can you devote to maintenance? Take into account each plant's hardiness, light requirements, resistance to disease and insects, pruning requirements, mature size, and invasiveness, and learn which species, varieties, and cultivars meet your needs.

The following is a list of Water Smart plants for James City County. Each is listed because it is water efficient by nature or native to the region, and should thrive under natural conditions.

If you have any questions about these plants please do not hesitate to talk to your local Water Smart nursery or landscaper. They are committed to helping you be Water Smart.

Ask The Expert

For a complete list of our Water Smart partners, go to the Water Smart web site at:
www.bewatersmart.org

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Water Smart
Plant List



Shrubs

Common Name	Botanical Name
Acuba	<i>Acuba japonica</i>
American Arborvitae	<i>Thuja occidentalis</i>
American Beautyberry	<i>Callicarpa americana</i>
American Boxwood	<i>Buxus sempervirens</i>
Barberry	<i>Berberis thunbergii</i>
Black Chokeberry	<i>Aronia melanocarpa</i>
Blackhaw Viburnum	<i>Viburnum prunifolium</i>
Chinese Holly	<i>Ilex cornuta</i>
Chokecherry	<i>Prunus virginiana</i>
Deutzia	<i>Deutzia scabra</i> ; <i>D. gracilis</i>
Eastern Arborvitae	<i>Thuja orientalis</i>
English Boxwood	<i>Buxus sempervirens</i> 'Suffruticosa'
Euonymus	<i>Euonymus japonica</i>
False Arborvitae	<i>Hiba arborvitae</i>
Firethorn	<i>Pyracantha</i> (several species)
Flowering Quince	<i>Chaenomeles japonica</i>
Forsythia	<i>Forsythia</i>
Glossy Abelia	<i>Abelia x grandiflora</i>
Hawthorne	<i>Raphiolepis indica</i>
Heavenly Bamboo	<i>Nandina domestica</i>
Hummingbird Summersweet	<i>Clethra alnifolia</i>
Inkberry	<i>Ilex glabra</i>
Japanese Holly	<i>Ilex crenata</i>
Japanese Honeysuckle	<i>Lonicera japonica</i>
Juniper	<i>Juniperis</i> (many species)
Littleleaf Boxwood	<i>Buxus microphylla</i>
Mahonia	<i>Mahonia bealei</i> ; <i>m. aquifolia</i>
Mountain Laurel	<i>Kalmia latifolia</i>
Possumhaw	<i>Ilex decidua</i>
Privet	<i>Ligustrum</i> (several species)
Red Chokeberry	<i>Aronia arbutifolia</i>
Scotch Broom	<i>Cytisus scoparius</i>
Southern Arrowwood	<i>Viburnum dentatum</i>
Southern Wax Myrtle	<i>Myrica cerifera</i>
Spirea	<i>Spirea</i> (several species)
Virginia Sweetpire	<i>Itea virginica</i>
Western Arborvitae	<i>Thuja plicata</i>
Winterberry	<i>Ilex verticillata</i>
Witch Hazel	<i>Hammelis virginiana</i>
Yucca	<i>Yucca</i> (several species)



Common Name

Aster

Black Eyed Susan

Blanket Flower

Butterfly Bush

Butterfly Weed

Daylily

Gayfeather

Lambs Ear

Lantana

Lavender

Lavender Cotton

Oregano

Parsley

Pinks

Purple Coneflower

Queen Anne's Lace

Rosemary

Sage

Stonecrop

Thyme

Tickseed

Yarrow

Botanical Name*Aster novae-angliae;**A. novae-belgii**Rudbeckia fulgida**Gaillarda x grandiflora**Buddleia davidii**Asclepias tuberosa**Hemerocallis*

(many species)

*Liatrus spicata**Stachys byzantina**Lantana* (many species)*Lavandula* (many species)*Santolina**chamaecyparissus**Origanum* (many species)*Petroselinum crispum**Dianthus gratianopolitanus;**D. deltoides**Echinacea angustifolia**Daucus carota**Rosmarinus officinalis**Salvia* (many species)*Sedum* (many species)*Thymus* (many species)*Coreopsis* (many species)*Achillea millefolium*

PERENNIALS & HERBS

Common Name

Cotoneaster

Creeping Junipers

Creeping Thyme

Golden Oregano

Lilyturf

Leadwort

Mondo Grass

Phlox

Sedums

St. John's Wort

Botanical Name*Cotoneaster* (several species)*Juniperus horizontalis**Thymus serpyllum**Origanum vulgare* 'Aureum'*Liriope muscari; L. spicata**Plumbago ceratostigma**Ophiopogon japonicum**Phlox subulata**Sedum* spp.*Hypericum* (several species)

Groundcovers



Ornamental Trees (Under 50')

Common Name

American Holly
Chaste Tree
Chinese Dogwood
Crabapple
Crape Myrtle
Cypress
Eastern Redbud
Eastern Redcedar
Foster's Holly
Ginko
Japanese Flowering Cherry
Magnolia
Maple
Paw Paw
Persimmon
Russian Olive
Sassafras
Serviceberry
Smooth Sumac
Staghorn Sumac
White Fringe Tree
White Mulberry

Botanical Name

Ilex opaca
Vitex agnus-castus
Cornus kousa
Malus (many species)
Lagerstroemia indica
Cypressa (many species)
Cercis canadensis
Juniperus virginiana
Ilex attenuata 'Fosteri'
Gingko biloba
Prunus serrulata
Magnolia (several species)
Acer (many species)
Asimina triloba
Diospyros
Elaeagnus angustifolia
Sassafras albidum
Amelanchier arborea
Rhus glabra
Rhus typhina
Chionanthus virginicus
Morus alba

Native & Ornamental Grasses

Common Name

Big Bluestem
Blue Fescue
Indian Grass
Little Bluestem
Pampas Grass
Switch Grass

Botanical Name

Andropogon gerardii
Festuca glauca
Sorghastrum nutans
Schizachyrium scoparium
Cortaderia selloana
Panicum virgatum



Let's be Water Smart Sources & Resources

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Bob Winters & Debbie Green, Turf Love Nutrient Management Program

Sources

"Guide to WATER-WISE Landscaping," 1995, Virginia Cooperative Extension

"Landscape Designers: Professional Help For Your Garden" by Carol Pilgrim and Karen Kelly, Certified Landscape Designers, V.S.L.D.

"Xeriscape, A Guide to Developing a Water-Wise Landscape," Georgia Water Wise Council

Contact Us

Online:

www.bewatersmart.org

JCSA

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Sources &
Resources



Some Water Smart Resources

For more information on selection, planting, cultural practices, environmental quality and educational publications, contact your local Extension Office.



VIRGINIA STATE UNIVERSITY



VIRGINIA POLYTECHNIC INSTITUTE
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Virginia Cooperative Extension

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P.O. Box 69

Toano, VA 23168-0069

757-564-2170

www.ext.vt.edu



If you want to learn more about horticulture through training and volunteer work, ask about becoming a Master Gardener. Visit the James City County/Williamsburg Master Gardener Association website at www.jccwmg.org.



To learn how to produce healthy turf and receive a residential turf analysis, contact Turf Love through the James City County Extension Office or Master Gardener website.

Alliance for the Chesapeake Bay (Bayscapes)

www.acb-online.org

James City County

www.jccEgov.com

Hampton Roads Water Efficiency Team (HR WET)

www.hrwet.org

Virginia Department of Forestry

www.dof.virginia.gov

Virginia Society of Landscape Designers

www.vslld.org

For more helpful links, visit www.bewatersmart.org.



Recommended Books

The Story of Gardening by Penelope Hobhouse

Garden Home by P. Allen Smith

Architecture in the Garden by James Van Sweden

Gardening with Nature by James Van Sweden

The American Woodland Garden by Rick Darke

The Not So Big House by Sarah Susanka

Redesigning the American Lawn by F. Herbert Bormann

Let's be Water Smart Glossary

Aquifer - A formation of porous rock that holds water.

BMP - A Best Management Practice is a structural or non-structural stormwater practice that minimizes the impacts of land use changes on surface or groundwater systems.

Drought - A duration of rainfall deficit.

Infiltration - When a portion of rain, hail, or snow lands on the ground and enters the soil.

Peak Season - The term used by water utilities to define their highest times of water consumption.

Percolation - The process of water moving past the root zone after infiltration.

Rain Gauge - A device that measures rainfall.

Rain Garden - A low-impact water conservation and water quality BMP. Visit www.protectedwithpride.org.

Recharge - The process of refilling aquifers through infiltration and percolation of rain water into the ground.

Water Conservation - Measures intended to improve the efficiency of water use and reduce waste.



Let's be Water Smart
Your Notes

